

What is claimed is:

1. A method comprising administering a capsular polypeptide of a pathogen and a CD40 agonist to a vertebrate, wherein the capsular polypeptide or the CD40 agonist is administered in such an amount or frequency that an immunoprotective response is capable of being elicited in the vertebrate against the pathogen.
2. The method according to claim 1, wherein the pathogen is *Bacillus anthracis*, and the capsular polypeptide is poly glutamic acid (PGA).
3. The method according to claim 2, wherein the CD40 agonist is an agonistic anti-CD40 antibody.
4. The method according to claim 2, wherein an administration of the CD40 agonist is simultaneous with, or separated by no more than 24 hours from, an administration of said poly glutamic acid.
5. The method according to claim 2, comprising at least one booster administration of said poly glutamic acid after an initial administration of said poly glutamic acid and the CD40 agonist.
6. The method according to claim 2, wherein said vertebrate is a human.
7. An anti-PGA antibody derived from a vertebrate immunized by the method of claim 2.
8. An anti-PGA antibody of claim 7 which is produced by a hybridoma.
9. An assay comprising:
contacting a sample of interest with an anti-PGA antibody of claim 7; and
detecting the presence or absence of PGA in said sample of interest.
10. A vaccine formulation comprising a capsular polypeptide of a pathogen and a CD40 agonist.

11. The vaccine formulation according to claim 10, wherein the capsular polypeptide is poly glutamic acid, and the CD40 agonist is an agonistic anti-CD40 antibody.

12. A pharmaceutical composition comprising an antibody in a prophylactically or therapeutically effective amount, wherein said antibody is specific for a capsular polypeptide of a pathogen.

13. The pharmaceutical composition according to claim 12, wherein said antibody is an anti-PGA antibody.

14. The pharmaceutical composition according to claim 13, wherein said anti-PGA antibody is derived from a vertebrate which is immunized with poly glutamic acid in combination with a CD40 agonist.

15. A method comprising detecting a level of soluble poly glutamic acid in a biological sample from a vertebrate.

16. The method according to claim 15, wherein the level of said soluble poly glutamic acid is detected by an immunoassay.

17. The method according to claim 16, wherein the immunoassay is a competitive assay.

18. The method according to claim 16, wherein the immunoassay is in a direct format.

19. The method according to claim 15, wherein the vertebrate is a human, and the biological sample is a blood sample.

20. The method according to claim 19, wherein said poly glutamic acid is poly γ -D-glutamic acid.

21. The method according to claim 19, further comprising comparing the level of said soluble poly glutamic acid in the biological sample to a reference level of said soluble poly glutamic acid.

22. The method according to claim 19, wherein the reference level of said soluble poly glutamic acid is an average level of said soluble poly glutamic acid in blood samples from humans who have not been infected by *Bacillus anthracis*.

23. A kit comprising an antibody derived from a vertebrate immunized by poly glutamic acid in combination with a CD40 agonist.

24. The kit according to claim 23, wherein the antibody is a monoclonal antibody.

25. A method comprising administering to a vertebrate in need thereof a prophylactically or therapeutically effective amount of an antibody, wherein said antibody is specific for a capsular polypeptide of a pathogen.

26. The method according to claim 25, wherein said antibody is an anti-PGA antibody, and the vertebrate is a human.

27. The method according to claim 25, wherein said antibody is an anti-PGA antibody which is derived from another vertebrate immunized by poly glutamic acid in combination with a CD40 agonist.

28. A hybridoma capable of producing an antibody specific for poly glutamic acid.

29. A method for immunizing an animal or producing antibodies or hybridomas, comprising:

administering a CD40 agonist and an initial amount of a T cell-independent antigen to a vertebrate to elicit an immune response to the antigen; and

administering another amount of the antigen to the vertebrate after administration of the initial amount of the antigen.

30. The method according to claim 29, further comprising isolating splenocytes from the vertebrate after administration of said another amount of the antigen.

31. The method according to claim 30, wherein the antigen is a capsular polysaccharide of a pathogen, and the isolation of splenocytes and the administration of said another amount of the antigen are separated by no more than 7 days.

32. A monoclonal antibody derived from the vertebrate immunized according to the method of claim 29, said monoclonal antibody being specific for the antigen.